

What Is Claimed Is:

- 1                   1.    A method for treatment and post-  
2   treatment of the stenosed region of an artery  
3   comprising the steps of:  
4                    reducing the annular stenosed area within an  
5   artery; and  
6                    applying a radioactive dose to the area of  
7   reduced stenosis.
  - 1                   2.    A method as defined in Claim 1 wherein  
2   the step of applying the radioactive dose is sufficient  
3   to affect smooth muscle cells within the area of  
4   reduced stenosis to inhibit rapid growth of such cells,  
5   thereby preventing restenosis of the artery.
  - 1                   3.    A method as defined in Claim 1 further  
2   including the step of continuing to reduce the annular  
3   stenosed area while applying a radioactive dose to said  
4   area.
  - 1                   4.    A method as defined in Claim 1 including  
2   the step of allowing blood flow through the area of  
3   reduced stenosis while applying the radioactive dose.
  - 1                   5.    A method as defined in Claim 1 including  
2   the contacting of the tissue of the area of reduced  
3   stenosis with a radioactive material.
  - 1                   6.    A method as defined in Claim 1 further  
2   including the step of containing a source of  
3   radioactive dose before and after exposure to said area  
4   of reduced stenosis.
  - 1                   7.    A method for treatment and post-  
2   treatment of the stenosed region of an artery after
- 11

3 reduction of said region by angioplasty or other means  
4 comprising the step of applying a radioactive dose to  
5 said reduced region of the artery.

1 8. A method as defined in Claim 1 wherein  
2 the step of applying the radioactive dose is sufficient  
3 to affect smooth muscle cells within the area of  
4 reduced stenosis, thereby inhibiting rapid growth of  
5 such cells and preventing restenosis of the artery.

1 9. Apparatus for post-treatment of a  
2 stenosed region of an artery that has been reduced by  
3 angioplasty or other means comprising:  
4 radioactive dose means; and  
5 positioning means operatively connected to  
6 said dose means to position said dose means within the  
7 stenosed region of an artery that has been reduced by  
8 angioplasty or other means.

1 10. Apparatus as in Claim 9 wherein the  
2 positioning means includes a retractable sheath which  
3 may be removably positioned over said radioactive dose  
4 means.

1 11. Apparatus as in Claim 9 wherein the  
2 positioning means further includes an angioplasty  
3 balloon and said radioactive dose means is connected to  
4 said balloon and is positioned in the stenosed region  
5 by expansion of said balloon.

1 12. Apparatus as in Claim 9 wherein the  
2 positioning means includes a stent and said radioactive  
3 dose means is associated with said stent.

